

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

PRELIMINARY COMMENT ON SOME PACIFIC
COAST PETRELS.

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Ever since 1913, when the writer camped for a period of several weeks on Los Coronados Islands off the Pacific coast of Lower California and had almost daily contact with the petrel colonies there, he has been intrigued not only by the seemingly endless variations in the pattern of the upper tail-coverts, but also by the equally limitless variations of opinion as to the relationships of the petrels which form a chain of colonies from southeastern Alaska to the San Benito Islands off Lower California. I refer to the *Oceanodroma beali*—*beldingi*—*kaedingi*—*socorroensis*—*chapmani* series to which the above names have been applied in a specific sense, or subspecifically in combination with *Oceanodroma leucorhoa* or *Oceanodroma monorhis*.

It was the contention of the late Leverett M. Loomis (Proc. Calif. Acad. Sci. 4th ser., 2, Pt. 2, 1918, pp. 1-187) that this whole complex, with the possible exception of "*kaedingi*," belonged to a single dichromatic species, *Oceanodroma leucorhoa*, in which color and size variations were more or less segregated geographically. Loomis was, as everyone knows, a staunch advocate of strictly binomial nomenclature, and while he gave full consideration to geographic variation he refused to dignify it by name. In the present case he presented all the facts in meticulous detail, but no one, so far as I am aware, has given consideration to his well presented data. For instance, the 1931 edition of the 'Check-list' carries "*socorroensis*" as a full species, separated from *leucorhoa* by no less than four species of no particularly close relationship to either. I mention the Check-list since it is the most impersonal target which can be selected.

In the course of the past several months I have assembled a series of 284 petrels, all but 35 of which are known to be breeding birds taken from their nesting burrows. The localities range from the Sitka region of southeastern Alaska, south to Guadalupe and the San Benito Islands. All of these are represented by more than adequate material save for the

Farallone Islands from which only six specimens have been examined. A rather lengthy paper, accompanied by photographs, is in manuscript, but as this may not be published for several months, I give here a summary of the conclusions from a nomenclatural and distributional standpoint. In these conclusions there is no claim to originality. Loomis correctly diagnosed the situation twenty-three years ago and there remains only the decision as to how many transitional steps to recognize by formal name.

Oceanodroma leucorhoa beali Emerson.

Oceanodroma beali Emerson, Condor, 8, No. 2, March 20, 1906, 54 (Sitka Bay, Alaska).

Oceanodroma beldingi Emerson, *ibid.* (Netarts Bay, coast of Oregon.)

Range.—Breeds on islands from the Sitka region, southeastern Alaska, south to the Farallone Islands and probably to Año Nuevo Island, San Mateo County, California.

Oceanodroma leucorhoa willetti, subsp. nov.¹

(*Oceanodroma socorroensis* part, of authors but not of Townsend.)

Range.—Breeds on Los Coronados Islands, northern Lower California.

Oceanodroma leucorhoa chapmani Berlepsch.

Oceanodroma monorhis chapmani Berlepsch, Auk, 23, No. 2, April, 1906, 185 (San Benito Island, Lower California).

¹ *Type.*—Breeding male adult No. 8930 Dickey collection; Little Middle Island, Los Coronados Islands, Pacific coast of northern Lower California, Mexico, June 19, 1913; collected by A. J. van Rossem.

Subspecific characters.—Similar to *Oceanodroma leucorhoa beali* in body coloration but upper tail coverts extremely variable, usually nearly uniform blackish gray and paler than the rump and tail but varying to nearly pure white exactly as in *beali*. Similar to *Oceanodroma leucorhoa chapmani* but body coloration (particularly anteriorly) slightly lighter and distinctly more plumbeous (less fuliginous or brownish); upper tail coverts paler and highly variable in the amount of white, instead of being nearly or quite concolor with the rump and tail. Size slightly larger than either *beali* or *chapmani*. Similar to *Oceanodroma leucorhoa socorroensis* in the extreme variability of the amount of white in the upper tail coverts, but body coloration paler and more plumbeous (less blackish) and size larger in all dimensions.

Remarks.—Perhaps the only surprise connected with the present work was the fact that examination of the type of *socorroensis* shows it to belong without question to the small, Guadalupe race. In fact it approaches the minimum in measurements and slenderness of bill and tarsi. Just why Anthony, in the light of his own observed variability in the color of the upper tail coverts of both Los Coronados and Guadalupe specimens, and with Townsend's published measurements before him, should have re-described the smaller race is quite incomprehensible. Equally so is the failure of anyone else to investigate the nature of the type of *socorroensis*.

It will be noted that the Asiatic *Oceanodroma monorhis* is not mentioned in the above synopsis, even though it is usually considered to be conspecific with the San Benito and Los Coronados birds. Whether or not it merges into *leucorhoa* in the manner of the North American "dark-rumped" races would seem to be of more importance in deciding its specific status than a, perhaps superficial, resemblance to *chapmani*. However, I have not the material to discuss the question, nor is it of especial importance in the present connection.

In naming the race of Los Coronados Islands for George Willett, I do so as a measure of appreciation for help and advice in various problems, including the present one. I am happy to say that we are in complete agreement on all points.

(*Oceanodroma socorroensis* part, of authors but not of Townsend.)

Range.—Breeds on the San Benito Islands, central Lower California.

Oceanodroma leucorhoa socorroensis Townsend.

Oceanodroma socorroensis Townsend, Proc. U. S. Nat. Mus., 13, No. 799, Sept. 9, 1890, 134 ([at sea near] Socorro Island [off western Mexico]).

Oceanodroma kaedingi Anthony, Auk, 15, No. 1, Jan., 1898, 37 (at sea near Guadalupe [sic] Island, Lower California = Lat. 31° N.; Long. 117° W.).

Range.—Breeds on Guadalupe Island, off Lower California.